



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

INDEX TO VOLUME IV.

A.

Adams, W. B., on Bessemer iron, 714
— J. K. Blackwell's paper on the Iron Industry of Great Britain, 126
— fire-proof buildings, 443
— patent reform, 337
— international patent right, 398
— permanent way of railways, 264
— the rights of language, 368
Yerva de Paraguay, 321

Address of Rev. Dr. Booth, chairman of council, on opening of one hundred and second session, 1

Adulteration, food and its, S. A. Good, 41
— L. R. V., 786

Agriculture, progress of, C. W. Hoskyns, 271

Agricultural Statistics, by Thos. Dawson, 599

Albert, H.R.H. Prince, on exhibition of art treasures, 594

Alligators' ambergris, by S. Piessie, 128

Almgill, T., on tests of steel manufactures, 424

Alum, exportation of from China, 440

Anderson, Alfred, on Mr. Hawes's theory of saponification, 539, 597

Anemometer, barometric, R. Willats, 540

Annals of British Legislation, Leone Levi, 40, 424

Ansted, D. F., on negative artesian wells, 643

Anthracite domestic fires, 653

Apelt, Dr., on preserving wood, 613
— letter on, by H. P. Burt, 642

Apparatus for teaching mechanics in schools, Prof. Willis, 344

Archer, T. C., on animal products, &c., which form part of the foreign commerce of Liverpool, 255

— remarks on, by P. L. Simmonds, 258
— on Yerva de Paraguay, 352

Art treasures, Exhibition of, 653, 685, 760, 798
letter by H.R.H. Prince Albert, 594.

Artesian wells, negative, remarks on, by D. T. Ansted, 643

— A. E. Bruckmann, 609, 621, 633, 645, 764
— by Hyde Clarke, 655
— J. B. Denton, 668

Assam silk-worm, J. Wells, 129

Atherton, C., on tonnage registration, 131, 156, 233, 253, 442, 485, 537, 573, 650, 657, 670, 736

— by W. S. Lindsay, M.P., 212
— by W. Mitchell, 234

— remarks on, by editor of *Mechanics' Magazine*, 469, 525, 571, 710
— on steam-transport economy, 755
— remarks on, by J. R. Napier, 669.

Atnometer, new, by Arthur Mitchell, 501

Audley, C. F., on the working classes of Europe, 189

Avocado pear tree, oil of, by Dr. L. Playfair, 510

B.

Babbage, Charles, on cypher writing, 40

Baines, E., letter to Yorkshire Union on the Examinations, 755

Baker, Colonel, on Colonel A. Cotton's paper on the material improvement of India, 207

Balance sheet, 531

Bank-notes, security and manufacture of, H. Bradbury, 638

Barrett's process of hardening stone, 413

Bennoch, F., on thread or fibre gilding, 373, 424

— remarks on, W. Green, 409, 442

Bentham, M. S., on amphibious carriages, 688, 713, 787
— on Bessemer iron, 798
— on education of girls, 616, 643
— on iron for ordnance, 206
— on resisting power of iron, 764
— materials for knife handles, 410
— on recoil of mortars, 9
— on naval gunnery, 41
— patent grants, 266, 320

Bessemer iron, 695, 708, 741, 758
— by W. B. Adams, 714
— M. S. Bentham, 798
— T. M. Gladstone, 786
— H. W. Reveley, 798

Birch, J., on printing fabrics, with special reference to shawls and carpets, 401

Blackwell, J. K., on iron industry of Great Britain, 63, 113
— W. B. Adams on, 126
— D. Mushet on, 196
— H. Scrivenor on, 158

Boats, corrugated metal, Major V. Eyre, 664

Books, class, for institutions, 220, 731
— R. R. W. Lincoln, 343, 791

Books and Engravings, Multiplication of, 367

Booth, Rev. Dr., opening address, 1
— lecture on education at Hitchin M.I., 768

Lewes M.I., 720

Boucherie, Dr., on railway sleepers, 687

Bowditch, W. R., on improvement of educational institutions, 106, 538
— on a new manure, 653

Boydell's traction engine, letter on, by J. J. Mech, 382

Bradbury, H., on security and manufacture of Bank-notes, 638

Braidwood, J., on means of arresting fires, 413, 448

Braithwaite, F., on Prof. Clark's papers on water supply, 507

Breaks for railway carriages, G. S. Parkinson, 440

Bricks, drying and burning of, by H. Chamberlain, 515
— manufacture of, by machinery, H. Chamberlain, 491
— remarks on, J. P. Oates, 524

Bridge building, 699

Bromby, C. H., on Examinations, 678

Bruckmann, A. E., on negative artesian wells, 609, 621, 633, 645, 764

D. T. Ansted, 643

Hyde Clark, 655

J. B. Denton, 668

Brussels Economic Exhibition, 447, 593
— report by T. Twining, jun., 780

Brussels international philanthropic congress, 621, 676, 717

Buchanan, Archibald, memoir of, 204

Buckmaster, J. C., on teaching mechanics in schools, 348

Buildings, Medina cement concrete, 725

Burch, Jos., on printing of fabrics, with special reference to shawls and carpets, 401

Burt, H. P., on Dr. Apelt's method of preserving wood, 642

C.

Calvert, Prof. F. Crace, on the purification of streams, 505

Cameron, L., on shipbuilding in West Indies, 367

Campbell, D., on Prof. Clark's paper on water supply, 470

Campin, F. W., on patent reform, 267

Candidates, registry of certificated, 705

Candle Company, Price's, G. F. Wilson on the manufacture of, 148

Carpet manufacture, Alexander Whytock, 240
— remarks on, R. W. Sivier, 469

Carriages, amphibious, M. S. Bentham, 688, 713, 787
— private, construction of in England, and on carriage department of Paris Exhibition of 1855, by George N. Hooper, 29

Cement, hydraulic, H. W. Reveley, 788

Cements, marine, 738

Certificated candidates, registry of, 705

Chadwick, E., on improvements in machinery and in manufacturing processes, as affecting the condition of the labourers, 803

Chamberlain, H., on drying and burning bricks, 515
— on brick making by machinery, 491

— remarks on, by J. P. Oates, 524

Chance, H., on crown and sheet glass, 222

Charley, W., on flax and its products in Ireland, 98

Clark, Prof., on water supply, 429
— by F. Braithwaite, 507
— by D. Campbell, 470
— by J. C. Hammersham, 510

Clarke, Hyde, on decimal coinage, 76
— on negative artesian wells, 655
— on slag bricks, 41

Clarke, Rev. Charles, on the examinations, 774

Classes and lectures, Institution, F. J. Macaulay, 183
— and examinations, Sir J. Rennie, 183

Colonial institutions, union of with Society of Arts, 65, 343, 743
— labour, R. Temple, 738, 760

Committees of reference, 187

Conference, fifth annual, 543

Congress, international, philanthropic at Brussels, 621, 676, 717

Copper, zinc, tin, and lead, imports and exports, 602

Corn, broom, H. W. Reveley, 322

Corrugated metal boats, &c., Major V. Eyre, 564

Cort's inventions, D. Mushet on, 105, 181, 582

Cotton, Colonel A., on material improvements of India, report by Colonel Baker, 207

Council, list of, and officers, 571

Crochet for street porters, 642

Cultivation by steam, J. Fowler, jun., 163
— W. Smith, 320

Currency, international, J. A. Franklin, 642

Curtis, J. F. B., on fire annihilator, 450

Cutlery and steel manufactures, Jas. Wilson, 357, 383

Cypher writing, by Charles Babbage, 40

D.

Daines, J. B., on decay and preservation of stone-work, 604

— Lord Lyndhurst on, 629

Dawson, Thos., on agricultural statistics, 599

Decimal Coinage, by Hyde Clarke, 76
— Prof. De Morgan, 614
— J. E. Gray, 108, 233, 267
— S. O. Gray, 425
— C. W. Merrifield, 214
— F. J. Minasi, 322
— R. Slater, jun., 670
— Alfred Since, 528, 581
— penny system, S. A. Good, 340

Decimal Coinage, Tenpenny system, letter on, by S. A. Good, 9, 254

Decimal system, weight of coins, S. A. Good, 443

— Mr. Smee's proposal, S. A. Good, 539

Declaration in favour of examinations, 220, 587

De Morgan, Prof., on decimal coinage, 614

Denrhoos fibre of Bengal, W. Stones, 601

Denton, J. B., on underdrainage of land, 45, 81

— on negative artesian wells, 668

Designs, as applied to manufactures, by G. Wallis, 291, 319

Designs, weekly list of, for articles of utility registered, 28, 44, 64, 80, 112, 146, 162, 186, 218, 238, 270, 290, 310, 324, 340, 356, 372, 384, 412, 428, 446, 514, 530, 586, 608, 620, 632, 656, 680, 692, 730, 754, 766, 790, 802

Dick, C. M., on drainage of land, 321

Dinner, one hundred and second anniversary, 558

Doulton, H., on smoke from pottery kilns, 601

Drainage of land in France, 677

— C. M. Dick, 321

— H. W. Reveley, 109

Drains, apparatus for examining, 642

Drawing instruments, Parkes and Sons, 669

E.

Economic museums, 74, 347

— Corr Vander Maeren on, 319.

Education of the artisan, and employment of women, W. H. J. Traico, 349

— of girls, M. S. Bentham, 616, 643

Educational institutions, improvement of, by W. R. Bowditch, 538

Examination of inventions, preliminary, by A. Tolhausen, 180

Examination of members of institutes, 173, 187, 219, 239, 263, 286, 318, 341, 379, 408, 468, 587, 609, 638, 767

— Hants and Wilts Education Society, 333

— to be held at Huddersfield, 743

— letter to Yorkshire union, by E. Baines, 755

Examinations, letter on, by C. H. Bromby, 678

— by Rev. Charles Clarke, 774

— Sir J. Herschel, 342

— as applicable to the colonies, by L. R. Valpy, 235

Examiners' report, 791

Exhibition of art-treasures, 653, 655, 760, 798

— letter by H. R. H. Prince Albert, 594

— Brussels economic, 447, 593

— of inventions, eighth annual, 143

Eyre, Major Vincent, on corrugated metal boats, &c., 664

F.

Felkin, W., on the lace trade, 475

Fibre of the Dhenroos of Bengal, report by W. Stones, 601

Fibre-gilding, by Francis Bennoch, 373, 424

—, remarks on Mr. Bennoch's paper, by Wm. Green, 409, 442

Fibres, Indian, Thos. Watson on, 73

—, machines and processes for preparing, P. L. Simmonds, 91

Fire annihilator, J. E. B. Curtis, 450

Fires, means of arresting, &c., J. Braidwood, 413, 448

— anthracite domestic, 653

—, D. J. Murphy, 504

—, S. Piesse, 524

Fireproof buildings, W. B. Adams, 448

Fish, method of preserving museum specimens of, 97

Fisheries, Irish, report on, 626

Fishing-gut, silkworm, H. W. Reveley, 144

Flax and its products in Ireland, W. Charley, 98

Flax-scutching, McBride's machine, by Edwin W. Trent, 750

Food and its adulteration, S. A. Good, 41

Fowler, J., jun., on cultivation by steam, 163

France, iron industry of, 393

Franklin, J. A., on English and German monetary systems, 76

—, on international currency, 642

—, on relation of kilogramme, &c., to English standards of weight, 233

G.

Gladstone, T. M., on Bessemer iron, 756

Glass, crown and sheet, H. Chance, 222

Glycerine, Jas. Startin, on, 246

Good, S. A., on Food and its adulterations, 41

—, on penny system, 340

—, on tenpenny system, 9, 254

—, on weight of coins, 443

—, on Mr. Smee's proposal, 539

Grants, government, to societies, 578

Gray, J. E., on decimal coinage, 108, 233, 267

Gray, S. O., on decimal coinage, 425

Green, Wm., remarks on Mr. Bennoch's paper on fibre-gilding, 409, 442

Glum-gluten, by Geo. Osborne, 603

Gums and resins of commerce, P. L. Simmonds, 13

—, letter on, by T. S. Traill, 74

Gunnery, naval, M. S. Bentham on, 41

H.

Hants and Wilts Education Society, examination of classes, 333

Hawes, W., and the patent law, by Jethro Pym, 339

—, on soap manufacture, 325

—, theory of saponification, remarks on, by Alfred Anderson, 539, 597

H.

H. C. Jennings, 397, 580, 604, 630

Health, public, report of registrar-general, 641, 678

Henderson, A., on the measurement of ships for tonnage, 660

Herschel, Sir J., Society of Arts examinations, 342

Hitchin M.I., lecture by Rev. Dr. Booth at, 768

Hole, J., on parliamentary papers, 182

Homerham, S. C., on Professor Clark's paper on water-supply, 510

Honduras, commercial importance of, R. Temple, 379

—, natural resources of British, R. Temple, 104, 205, 333, 535

—, interoceanic communication, R. Temple, 699

Hooper, George N., on construction of private carriages in England, and on carriage department of Paris exhibition of 1855, 29

—, on awards of Paris exhibition, 75

Hoskyns, C. W., on progress of agriculture, 271

I.

India, material improvement of, Col. Baker's report on Col. A. Cotton's paper, 207

Indian fibres, Thomas Watson on, 73

Ink, solid, by G. N. Shaw, 617

Institution classes and lectures, F. J. Macaulay, 183

Institutions, rating of, appeal against, 127

—, exemption of from rating, 408, 575, 621, 681

—, popular, W. R. Bowditch on, 106, 538

—, meeting of representatives from, 147

INSTITUTIONS, PROCEEDINGS OF:—

Adderley Park (near Birmingham), 690

Alton M.I., 62, 215, 764

Almondbury, 715

Annan M.I., 512

Barnet Institute, 443

Bedford Assembly Rooms, 410

Bedford L. and S.I., 41, 369, 765

Belfast Working Classes Association, 426

Bexley Heath Useful Knowledge Society, 145

Blackburn L.S. and M.I., 488

Bolton, 9

Boston Athenaeum, 288, 533

Bradford Lit. Inst., 788

Brecon M.I., 369, 443

Brighton M.I., 443

Brighton Railway L. and S.I., 410

Bucks and Berks Lecturers' Association, 751, 798

Burton-on-Trent L. Soc. 702

Bury Athenaeum, 183

Camberwell L. and S.I., 215

Cambridge, Philo. Union and L.S., 145

Carlisle Cl. of E. Religious and Lit. Assoc., 639

Carlisle M.I., 110

Chelmsford L. and M.I., 94

Cheltenham L. and P.I., 308

Chichester Lit. Sci. and M.I., 788

Cornwall Polytechnic Society, 765

Crieff M.I., 216

Dawlish Lit. Soc., 512

Deptford L. and M.I., 322

Dover Museum and Phil. Inst., 541

Epsom and Ewell L. and S.I., 62

Falkirk School of Arts, 807

Greenwich Society D.U.K., 352, 678

Hackney L. and S.I., 63

Halifax, M.I., 352, 655

Halifax Working Man's College, 352

Hailstead M.I., 236

Hants and Wilts Adult Educational Society, 752

Hastings M.I., 443

Hereford Lit. and Ant. Soc., 95

Hitchin M.I., 768

Hornastle M.I., 728

Huddersfield M.I., 77, 370, 512

King's Lynn Stanley Library, 184

Kendal M.I., 489

Levies M.I., 145, 600, 716, 720

Limerick Athenaeum, 160, 605

Liverpool Collegiate Inst., 427, 541

Liverpool M.I., 322

London:—

Camden Literary Inst., 370

Crosby Hall Evening Classes, 727

Hackney L. and S.I., 63

Domestic Mission, 268

Royal Polytechnic Inst., 728, 752, 765

L. and S. W. Railway L. and S.I., 216, 288, 765

Lynn Conversazione and Society of Arts, 444

Macclesfield Useful Knowledge Soc., 41

Manchester M.I., 597, 690, 703

Morpeth M.I., 444

Nailsworth L. and M.I., 765

Newcastle-upon-Tyne, 9

Newport (Monmouthshire) Athenaeum and M.I., 444

Oldham Lyceum, 728

Plymouth Institute, 444

Poole L. and S.I., 410

Portsmouth and Portsea Lit. and Phil. Soc., 799

Radway (near Banbury) M.I., 216, 618

Richmond Parochial Library, &c., 789

Royston M.I., 43, 160, 352, 445, 512, 618, 690, 755, 799

Salford M.I., 268, 398

Sevenoaks, L. and S.I., 323

Southampton Polytechnic Inst., 353

Stalybridge M.I., 63

Tenterden Mutual Improvement Society, 63

Tunbridge Wells U. Knowledge Inst., 79

Tunbridge Lit. S., 308, 371

Wandsworth L. and S. Inst., 145

Waterford M.I., 308

Whitehaven M.I., 630

Winchester. Adult Education Society, 63

Windsor and Eton Lit., Sci., and M.I., 799

Wirksworth Grammar School, 411

Wirksworth M.I., 618

Yarmouth, Parochial Library and Mus., 800

Yeovil Mutual Improvement Society, 489

York Inst. Pop. Sci. and Lit., 775

Yorkshire Union of Mech. Insts., 471, 755

Inundations, H. W. Reveley, 787

Inventions, preliminary examination of, by A. Tolhausen, 180

Iron manufacture at home and abroad, D. Mushet on J. K. Blackwell's exposition of, 196

— ores of Great Britain, analysis of, by D. Mushet, 617

— and steel without fuel, manufacture of, 695, 708

W. B. Adams, 714

— industry of Great Britain, H. Scrivenor, 158

—, W. B. Adams, 126

—, J. K. Blackwell, 65, 113

— France, H. Scrivenor, 393

—, resisting power of, M. S. Bentham, 764

— trade, H. Scrivenor on the, letter by D. Mushet, 62

J.

Jamaica lithographic stone, E. C. Lewis, 684

— natural resources of, 232

— L. R. Valpy, 786

— Society of Arts, 367

—, L. R. Valpy, 536

Jennings, H. C. (M.D.) on G. F. Wilson's and W. Hawes's theory of saponification, 397, 580, 604, 630

Johnson, H., letter from, offering prize of 200 guineas for essay on the financial position of the country, 767

K.

Kew observatory, appointment of assistant-observer at, 633

Kilogramme, &c., relations of to English standard weights, J. A. Franklin, 233

King, Jas., on the growth of wine in New South Wales, 575

Knife-handles, materials for, M. S. Bentham, 410

L.

Labourers, improvements in machinery and in manufacturing processes, as affecting the condition of the, by E. Chadwick, 803

Labour, colonial, R. Temple, 738, 760

in tropical colonies, L. R. Valpy, 748

Lace, Limerick, 796

— trade, by W. Felkin, 475

Language, rights of, W. B. Adams, 368

Lecturers, new list of, by W. Rowton, 579

Leone Levi's annals of British legislation, 40,

424

Lewes Mechanics' Institution, lecture by

Rev. Dr. Booth, 720

Lewis, E. C., lithographic stone in Jamaica, 684

Liability, limited, 97

Limerick lace, 796

Lindsay, W. S., on C. Atherton's paper on

tonnage registration, 212

Linen trade with France, by R. Sturrock, 532

Lingen, R. R. W., on class-books for insti-

tutes, 343, 791

Lithographic stone in Jamaica, E. C. Lewis,

684

Liverpool, animal products, &c., forming

part of commerce of, T. C. Archer, 265

— remarks on, by P. L. Sim-

monds, 258

Loseby's parallel rule, letter on, by H. W.

Reveley, 8

Lucifer-match, Swedish safety, 641

M.

M'Brude's flax-scutching machine, by E. W. Trent, 750

McDougall, A., on manures and deodorisers, 726

Macaulay, F. J., on institution classes and

lectures, 183

Maeren, Corr Vander, on economic museums,

319

Manufactures, depreciation of, Chalybe, 368

Manure, a new, W. R. Bowditch, 653

Manures and deodorisers, A. McDougall, 726

Marble or stone, induration of, H. C. Page,

592

— remarks on, by H. W. Reveley, 630

Masters, M. T., on the transfer of useful

plants from one country to another, 311

Mechanics, on teaching in schools, J. G.

Buckmaster, 348

— Prof.

Willis on apparatus for, 344

Mechi, J. J., on Boydell's traction engine, 382

Medina cement concrete buildings, 726

Meeting, annual general, 531, 565

Memorial from Hants and Wilts Adult Edu-

cational Society, 767

Mercantile steam transport economy, 650, 657

710

Merrifield, C. W., on decimal coinage, 214

Methylated spirit, report on, 705, 717, 733

Minasi, F. J., on decimal coinage, 322

— on Prof. Willis's lectures on

teaching mechanics in schools, 349

Mining, report on, by H. S. Tremenheere, 686

Minton, Herbert, testimonial to, 579

MISCELLANEA:—

Bessemer iron, 741

Cast iron, experiments with, 528

Coffee as a deodorizer, 741

Cotton in Algeria, cultivation of, 691

Decimal coinage, 513

Engraving, electro chemical, 691

Gas in omnibuses, 691

Iron, Bessemer, 741

— experiments with cast, 528

Joinery, export trade in, 691

Libraries, the Liverpool free lending, 690

— public act, Cheltenham, 741

Library, the Marylebone free, 690

Milking cows, contrivance for, 691

Pavement, experimental iron, 753

Royal Society and the Government, 528

Schools of art and government department

of science and art, 528

Storm sails, 10

Union, proposal of the Lit. and Sci. Insts. of

Cornwall, 10

Wheat, bushel of, 691

Mitchell, Arthur, on a new anerometer, 501

Mitchell, W., on tonnage registration, 234

Monetary system, relation between English

and German, J. A. Franklin, 76

Mortars, recoil of, M. S. Bentham, 9

Murphy, D. J., on arresting fires, 504

Museums of art, state aid for, 485

Museum, commercial, in Liverpool, 409

— economic, 347

Corr Vander Maeren on, 319

— trade, 390

Mushet, D., on Cort's inventions, 105, 181, 582

— on J. K. Blackwell's exposition of

the iron manufactures at home and abroad, 196

— on iron for ordnance, 287

— on analysis of iron ores of Great

Britain, 617

— letter on H. Scriveron's paper on

the iron trade, 62

Napier, J. R., remarks on Charles Atherton's

paper on steam-transport economy, 669

Negative artesian wells, by A. E. Bruckmann,

609, 621, 633, 645, 764

D. T. Ansted, 643

Hyde Clarke, 655

J. B. Denton, 668

O.

Oates, J. P., remarks on Mr. Chamberlain's

paper on brick-making by machinery, 524

Oil of avocado pear tree, by Dr. L. Playfair,

510

Oliveira, B., M.P., wines of Hungary, 600

Oratory of the senate, F. Webster. Letter

on, by S. L. Rymer, 61

Ordnance, iron for, M. S. Bentham, 206

D. Mushet, 287

Osborne, George, on gum glutin, 603

P.

Page, H. C., on indurating marble or stone,

592

— remarks on, by H. W. Reveley, 630

Paper manufacture, Paris Exhibition of 1855,

W. Stones, 60

T. H. Saunders, 291

— material question, W. Stones, 745

— materials for making, J. Withington,

264

Paris Exhibition of 1855, carriage depart-

ment, G. N. Hooper, 29

awards, G. N.

Hooper, 75

— improvements, 682, 693

Parkinson, G. S., on breaks for railways, 440

Parliamentary blue-books, 40

— papers, letter on, by J. Hole,

182

— reports, 216, 237, 267, 288, 309,

323, 354, 371, 383, 399, 411, 427, 445, 473,

489, 513, 529, 541, 573, 585, 607, 619, 630

Patent grants, M. S. Bentham on, 266, 320

— law, amendment of, 347

— law reform, A. Tolhausen, 351

— W. B. Adams, 337

— F. W. Campin, 267

— law and Mr. Hawes, Jethro Pym, 339

— laws, British Association, 101

— law, committee of British Association,

report of, 675

— office fees, surplus from, 253, 389

— Sir J. Pax-

ton, 178

— meeting in reference to, 220

— office publications, 468

— right, international, W. B. Adams, 398

Patents, report of the commissioners of, 661

— and the Society of Arts, Thomas

Webster, 41

— applications for, and protection al-

lowed, 11, 27, 43, 63, 79, 96, 111, 129, 145,

161, 184, 217, 237, 254, 269, 289, 309, 323,

340, 355, 371, 384, 398, 411, 427, 445, 473,

489, 513, 529, 542, 573, 585, 598, 607, 620,

631, 644, 655, 668, 679, 692, 704, 716, 729,

741, 753, 765, 778, 789, 801, 807

Patents sealed, weekly list of, 12, 28, 44, 64,

80, 112, 130, 146, 162, 186, 218, 238, 270,

290, 310, 324, 356, 372, 384, 400, 412, 428,

446, 474, 490, 514, 530, 542, 574, 586, 598,

608, 620, 632, 644, 656, 668, 680, 692, 704,

716, 730, 742, 754, 766, 778, 790, 802, 808

Paxton, Sir J., on surplus from patent office

fees, 178

— meeting in reference to, 220

Permanent way of railways, W. B. Adams,

264

Photogalvanography, P. Pretsch, 385

Photography, invention of, 687

— under water, W. Thompson, 125

Piesse, S., on alligators' ambergris, 128

— on arresting fires, 524

Plants, on the transfer of useful, from one

country to another, M. T. Masters, 311

Playfair, L., on oil of avocado pear tree, 510

Poppy, Charles, on preventing the fly from

destroying the turnip plant, 672

Popular institutions, W. R. Bowditch, 106,

533

Premiums, subjects for, 731, 743, 757

Pretsch, P., on photogalvanography, 385

Price's patent candle company, the manufac-

tures of, G. F. Wilson, 148

Printing fabrics, with special reference to

shawls and carpets, J. Birch, 401

— with gold, 727

Prize, special, for prevention of smoke nui-

sance, award of, 318

Prize, special, of 200 guineas offered by H.

Johnson, 767

Purification of streams, Prof. F. Crace Cal-

vert, 505

Purification of water, G. Twemlow, 702

Pym, Jethro, on patent law and Mr. Hawes,

339

R.

Railway hotel car, 688

Rating of institutions, 127

Rating, exemption of institutions from, 408,

575, 621, 681

Reference, committees of, 187

Registry of certificated candidates, 705

Rennie, Sir J., on classes and examinations,

183

Representatives from institutions, meeting of,

147

Resins of commerce, T. H. Wallis, 128

Report of examiners, 791

Reveley, H. W., on Bessemer iron, 798

— broom corn, 322

— drainage of land, 109

— hydraulic cements, 788

— Loseby's parallel rule, 8

— Mr. Page's process for in-

durating marble and stone, 630

— on inundations, 787

— silkworm fishing gut, 144

Riddle, Dr. R., on the Dhenroos fibre of Ben

gal, 601

Ropes and paper, manufacture of, from stem

of hollyhock, 641

Rowton, W., on new list of lecturers, 579

Rymer, S. L., on F. Webster and the oratory

of the senate, 61

S.

Salford, R., museum and library, 712

Saponification, remarks on Mr. G. F. Wilson's

and Mr. Hawes' theory of, by Alfred An-

derson, 539, 597

— by H. C. Jen-

nings, M. D., 397, 580, 604, 630

Saunders, T. H., on paper manufacture, 291

Schools, admission of into union, 743

Scriveron, H., on the iron industry of Great

Britain, 158

— on iron industry of France,

393

Secretaries, honorary local, 447

Shaw, G. N., on solid ink, 617

Shawls and carpets, printing of, J. Burch,

401

Shipbuilding in West Indies, Lewis Cameron

367

— owners, liability of, 532

Silk manufacture, British, Thos. Winkworth, 460
 Silkworm, Assam, J. Willis, 129
 — fishing gut, H. W. Reveley, 144
 Simmonds, P. L., on T. C. Archer's paper on animal products &c., forming part of foreign commerce of Liverpool, 258
 — on gums and resins of commerce, 13, 75, 128
 — letter on, by T. S. Traill, 74
 — preparing fibres, 91
 — Snakes and snake bites, 782
 Sivier, R. W., on Mr. Whytock's paper on carpet manufacture, 469
 Slag bricks, Hyde Clarke on, 41
 Slater, R., jun., on decimal coinage, 670
 Sleepers, railway, Dr. Boucherie, 687
 Smeel, Alfred, on decimal coinage, 528, 581
 Smith, W., on cultivation of steam, 320
 Smoke from pottery kilns, by H. Doulton, 601
 — nuisance, C. Wye Williams, award of gold medal, 669
 Snakes and snake-bites, P. L. Simmonds, 782
 Soap, manufacture of, W. Hawes, 325
 Society of Arts, Royal Scottish, 641
 Societies, list of Irish, 441
 Soulage collection, 780, 795
 Spirit, methylated, report on, 705, 717, 733
 Stain, James, on glycerine, 286
 Steel manufactures, Jas. Wilson, 357
 — test of, T. Almgill, 424
 — Chalybs, 396
 — Jas. Wilson, 383
 — the Uchatius process for the manufacture of, 759
 Ste etching, new process for, 653
 Stone, Barratt's process for hardening, 413
 — lithographic, in Jamaica, E. C. Lewis, 684
 Stones, W., on the Dhenroo fibre of Bengal, 601
 — on paper manufacture at Paris Exhibition, 60
 — on paper material question, 745
 Stonework, decay of, French system of preventing, 713
 —, decay and preservation of, J. B. Daines, 604
 — marks on, by Lord Lyndhurst, 629
 Streams, purification of, by Prof. F. Crace Calvert, 505
 Sti-rock, R., on linen trade with France, 532
 Sub-unions, local, 144
 Surgical instruments, English and French, by R. Williams, 426
 — in Paris Exhibition of 1855, by R. Williams, 160

T.
 Telephony, 726
 Temple, R., on colonial labour, 738, 760
 — on commercial importance of Honduras, 379
 — on Honduras interoceanic communication, 699
 — on natural resources of British Honduras, 104, 205, 333, 535
 Thompson, W., on photography under water, 425
 Thread or fibre gilding, F. Bennoch, 373
 Timber, new method of splitting, W. C. Trevelyan, 727
 Timber-bending machinery, 725
 Tolhausen, A., on patent reform, 351
 — preliminary examination of inventions, 180
 Tonnage measurement, A. Henderson, 660
 Tonnage registration, Charles Atherton, 131, 156, 233, 253, 442, 482, 537, 573, 650, 657, 670, 736
 W. S. Lindsay, M.P., 212
 — marks on, by editor of *Mechanics' Magazine*, 469, 525, 571, 710
 — remarks on, by J. R. Napier, 669
 — liability of British ship-owners, W. Mitchell, 234
 Traction engine, Boydell's, by J. J. Mechi, 382
 Trade school, Wandsworth, 595
 — museum, 390
 Traice, W. H. J., on education of the artisan, and employment of women, 349
 Traill, T. S., on P. L. Simmonds' paper on guns and resins of commerce, 74
 Tremenehe, H. S., report on mining, 686
 Trent, E. W., on McBride's flax-scutching machine, 750
 Trevelyan, W. C., on splitting timber, 727
 Turnip plant, means of preventing fly from destroying, Charles Poppy, 672
 Twemlow, G., on purification of water, 702
 U.
 Uchatius's process for manufacture of steel, 759
 Underdrainage of land in Great Britain, J. B. Denton, 46, 81
 V.
 Valpy, L. R., on examination of classes in institutes, as applicable to the colonies, 235
 — on Jamaica Society of Arts, 536
 — on natural resources of Jamaica, 786
 — on labour in tropical colonies, 748

Valpy, L. R., on purification of water, 688
 — to, by G. Twemlow, 702
 W.
 Waggon, metallic pontoon, 686, 699
 — Major V. Eyre, 664
 Wallis, G., on design as applied to manufactures, 291, 319
 — T. H., on resins of commerce, 128
 Wandsworth trade school, 595
 Water supply, by Prof. Clark, M.D., 429
 — remarks on, by F. Braithwaite, 507
 — D. Campbell, 470
 — S. C. Homersham, 510
 Water, purification of, L. R. Valpy, 688
 — G. Twemlow, 702
 Watson, T., on Indian fibres, 73
 Webster, Thos., on patents and the Society of Arts, 41
 Wells, J., on the Assam silk-worm, 129
 Whishaw, the late Francis, 760
 Whytock, A., on carpet manufacture, 240
 — marks on, by R. W. Sivier, 469
 Willats, R., on a barometric anemometer, 540
 Williams, R., on surgical instruments, 180
 — on English and French surgical instruments, 426
 —, C. Wye, award of gold medal for essay on smoke nuisance, 669
 Willis, Prof., on apparatus for teaching mechanics in schools, 344
 —, letter on, by F. J. Minasi, 349
 Wilson, G. F., on the manufactures of Price's Patent Candle Company, 148
 —, Jas., on steel manufactures, 357
 — on test of steel manufactures, 383
 Wines, the growth of, in New South Wales, by Jas. King, 575
 — of Hungary, B. Oliveira, M.P., 600
 Winkworth, Thos., on British silk manufacture, 460
 Withington, J., on paper-making materials, 264
 Wood, preservation of, W. Apelt, 613
 —, letter on, by H. P. Burt, 642
 Wood, the late John, 760
 Working classes of Europe, C. F. Audley, 189
 Whytock, Alex., on carpet manufacture, 240
 —, remarks on, by R. W. Sivier, 469
 Y
 Yerba de Paraguay, W. B. Adams, 321
 —, T. C. Archer, 352

E R R A T A.

Page 27, col. 1, line 66, for *Hemming*, read *Herring*.

,, 75, col. 1, line 44, for *Prussia*, read *Persia*.
 ,, 123, col. 1, line 2 from bottom, for *not one house of any repute*, read, *not any of the great houses*.
 ,, 167, in the account of Major Prati's patent, No. 3,309—1810, for, a series of ploughs revolve on a horizontal axis, read, a series of ploughs revolve horizontally on a vertical axis.
 ,, 209, col. 1, 17 lines from bottom, for £120,000, read, £1,200,000.
 ,, 262, line 11, for, for feeding cattle, read, as a dressing for wheat.
 ,, 362, col. 2, line 39, for *steel pins*, read *steel pens*.
 ,, 363, col. 1, line 12 from bottom, for, *unwise enough to lose the importation*, read, *unwise enough to tax the importation*.
 ,, 404, col. 2, line 31, after engraved rollers, take out the semi-colon, and insert a semicolon after *purpose*, in line 32; and in line 40, take out *but*.
 ,, 413, in list of members elected, for *Niblet* read *Niblett*.
 ,, 420, col. 2, line 12, for *it was stated*, read, *he stated*; and lines 17 and 18, for, *Professor Hoskyns*, the official referee of the insurance companies, read, *Professor Hosking*, the official referee.
 ,, 440, col. 1, line 2, for *only* read *chiefly*.
 ,, 460, col. 2, line 16 from bottom, for *Bentley*, *Richard*, read *Bentley*, *Professor Robert*.
 ,, 568, col. 2, under head *Examinations*, first line, for *I*, read *We*.
 ,, 575, col. 1, line 10, for *Telkin*, read *Felkin*.

,, 610, col. 2, line 11 from top, for *Kopæs*, read *Kopais*; in same column, in note, line 2, for *der*, read *dn*; same column, same note, for 1855, read 1835.
 ,, 611, col. 1, line 7, insert *near between on and or*.
 ,, 612, col. 1, line 23, for *Amterhausen*, read *Amterhausen*; same page, col. 2, line 35 from the bottom, insert *to between waters and sink*; in line 9 from the bottom, for 1820, read 1840; and last line but six, after *beds* dele ("').
 ,, 633, col. 2, note, line 1, for *Brunnenstabben* read *Brunnenstaben*; line 4, for *Meber Alegung*, read *Ueber Alegung*; line 6, for *Breisgane* read *Breisgaues*; line 7, for *Fromberg* read *Fromherz*.
 ,, 634, col. 1, line 17, for *Brunnenstabben*, read *Brunnenstaben*; notes, line 3, for *Auerstedt*, read *Quenstedt*; line 21, for *Zahrbücher*, read *Jahrbücher*.
 ,, 636, col. 1, notes, line 7, for *Auellen*, read *Quellen*; line 9, for *Perisidität*, read *Periodicität*; and for *Auellen*, read *Quellen*; col. 2, line 2, for *Buschelsteich*, read *Buschelsteich*.
 ,, 637, col. 1, note, line 2, before *Fertigung*, insert *zur*.
 ,, 638, col. 1, note, line 19, for *oberwäßischen*, read *oberschwäbischen*.
 ,, 745, col. 1, No. 185, for *The Principles of Great Circle Sailing with Physical Geography*, read, *The practice of Great Circle Sailing with the principles of Physical Geography*; and insert, No. 1654, for a simple Telescope of moderate price, to determine distances to 1000 yards.